

Report on some pholcid spiders collected in Guatemala and Honduras (Araneae, Pholcidae)

Bernhard A. HUBER*

Escuela de Biología. Universidad de Costa Rica, Ciudad Universitaria, Costa Rica

Report on some pholcid spiders collected in Guatemala and Honduras (Araneae, Pholcidae). - Descriptions and redescrptions of nine pholcid species from Guatemala and Honduras are given. The following species are new: *Modisimus pana* sp.n., *Mod. ixobel* sp.n., and *Metagonia asintal* sp.n. from Guatemala, *Modisimus lancetilla* sp.n. and '*Coryssocnemis*' *tigra* sp.n. from Honduras. For two species the males are newly described: *Metagonia blanda* Gertsch, 1973 and *Met. belize* Gertsch, 1986. Two species are redescrbed: '*Coryssocnemis*' *furcula* Cambridge, 1902 and *Modisimus cornutus* Kraus, 1955.

Key-words: Pholcidae - neotropics - Guatemala - Honduras.

INTRODUCTION

Pholcids are apparently among the most common and diverse spider families in the neotropics (Huber 1997 b). About 350 species are presently known from the New World, but this is probably only a small fraction of the actual number.

The present paper reports on part of the pholcids collected by the author in Guatemala, Honduras and Nicaragua during a 4-week trip in September and October 1996. The fact that about 35 species were collected in this short time demonstrates the abundance of pholcids in these countries, for which only about 15 species were previously recorded. This paper presents a subjective selection of the most 'interesting' species. The criteria for "interesting" were quite arbitrary, such as extraordinary morphological character states (e.g. *Modisimus pana*: pedipalps; '*Coryssocnemis*' *tigra*: epigynum, male bulb; *Metagonia belize*, *Met. lancetilla*, and *Modisimus ixobel*: male chelicerae); unusual variation in genitalia ('*Coryssocnemis*' *furcula*: epigynum); the first case of stridulation in the genus *Metagonia* (*M. asintal*); the surprisingly wide distribution of a troglophile species (*Metagonia blanda*), *Modisimus cornutus* Kraus, which was previously only known from the island of Utila, is reported from the mainland. For two species (*Metagonia belize*, *Met. blanda*), the

*Present address: Department of Entomology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024.

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males are newly described. The first is new for Guatemala, the second is new for Honduras. The known range of '*Coryssocnemis furcula* (new for Honduras) is widely extended.

'*Coryssocnemis furcula* is redescribed under the original name although it is almost certainly not congeneric with the type species of the genus (*C. callaica* Simon, 1893 from Venezuela; see Huber in press b for discussion of the genus). This is also true for '*C. tigma* n.sp. which may or may not be congeneric with '*C. furcula*. Only future revisions and phylogenetic analyses may justify the creation of a new genus (or new genera) for these species.

MATERIAL AND METHODS

Previously described species were borrowed from the following institutions: American Museum of Natural History, New York (AMNH), Natural History Museum, London (BMNH), Senckenbergmuseum Frankfurt (SMF). Holotypes and paratypes of new species as well as vouchers are deposited in the AMNH. Further types and vouchers are deposited in the Muséum d'histoire naturelle, Genève (MHNG). The other material is provisionally deposited in the author's collection.

Descriptions follow the style currently used for pholcid spiders (for discussion of style see Huber in press a). Drawings were made with a compound microscope with camera lucida and later completed with a dissecting microscope. Measurements (all in mm) were taken with ocular micrometers in a compound or a dissecting microscope. Averages (arithmetic means) are given for $N \geq 5$. Prosoma length was defined as the distance between frontal face of eye region and posterior border of carapace medially, but it varies widely with the angle at which the prosoma is viewed. "Carapace" is referred to as the dorsal part of the prosoma. The most accurate indicators of size are probably prosoma width and tibia length. Total size is simply the sum of prosoma length and opisthosoma length, regardless of the petiolus, and is given as an approximate indication of overall size. The tibia index ("tibind") is the length of the tibia divided by its width at the middle, and is thus a measure of the 'slenderness' of the legs. In the diagnoses, species with an average total length of >3 mm are defined as "large", those smaller than 2.5 mm are "small".

Diagnoses of the genera are not given, since there are recent discussions of each of the treated genera (*Modisimus* Simon, 1893; Huber in press a; *Coryssocnemis* Simon, 1893; Huber in press b; *Metagonia* Simon, 1893; Huber 1997a).

DESCRIPTIONS AND REDESCRIPTIONS

Modisimus pana sp.n.

Figs 1-10

MATERIAL EXAMINED: Male holotype and one female paratype from creek near Panajachel, Dept. Sololá, Guatemala, elev. about 1700 m, 17 Sept. 1996 (B. A. Huber), in AMNH. 1 male and 1 female paratypes, same collection data, in MHNG. 2 males, 1 female, 1 juv., same collection data, in author's collection.

Etymology: 'Pana' is the vulgar name of Panajachel, the type locality.

Diagnosis: Small to medium sized *Modisimus* with high eye turret (Fig. 1), characterized by the male genitalia (bulbal apophyses: cymbium with bent procurus and additional dorsal apophysis - Figs 3-4, 7-8), the male chelicerae with their characteristically modified hairs (Figs 5-6), and the female epigynum and internal genitalia (Figs 9-10). The species is similar to *M. palenque* Gertsch, 1977 (I have seen the male holotype of this species), but easily distinguished by details in the characters mentioned.

Distribution: Known only from above material from type locality.

DESCRIPTION

Male: Prosoma dorsally pale ochre, with brown mark medially (Fig. 2) and brown clypeus, eye turret brown posteriorly, sternum medially pale ochre, laterally slightly darker. Opisthosoma dorsally grayish ochre with large black spots and few small white spots (Figs 1-2), ventrally lighter, with brownish genital plate and brown spot between genital plate and spinnerets. Legs yellow-brown, with dark rings on femora (distally) and tibiae (proximally and distally). Six eyes on high eye turret (the holotype and one other male completely lack the AMEs, but two males have minute AMEs, cf. Fig. 2). Chelicerae with high number of modified hairs anteriorly (Figs 5-6). Pedipalps distinctive, as shown in Figs 3-4.

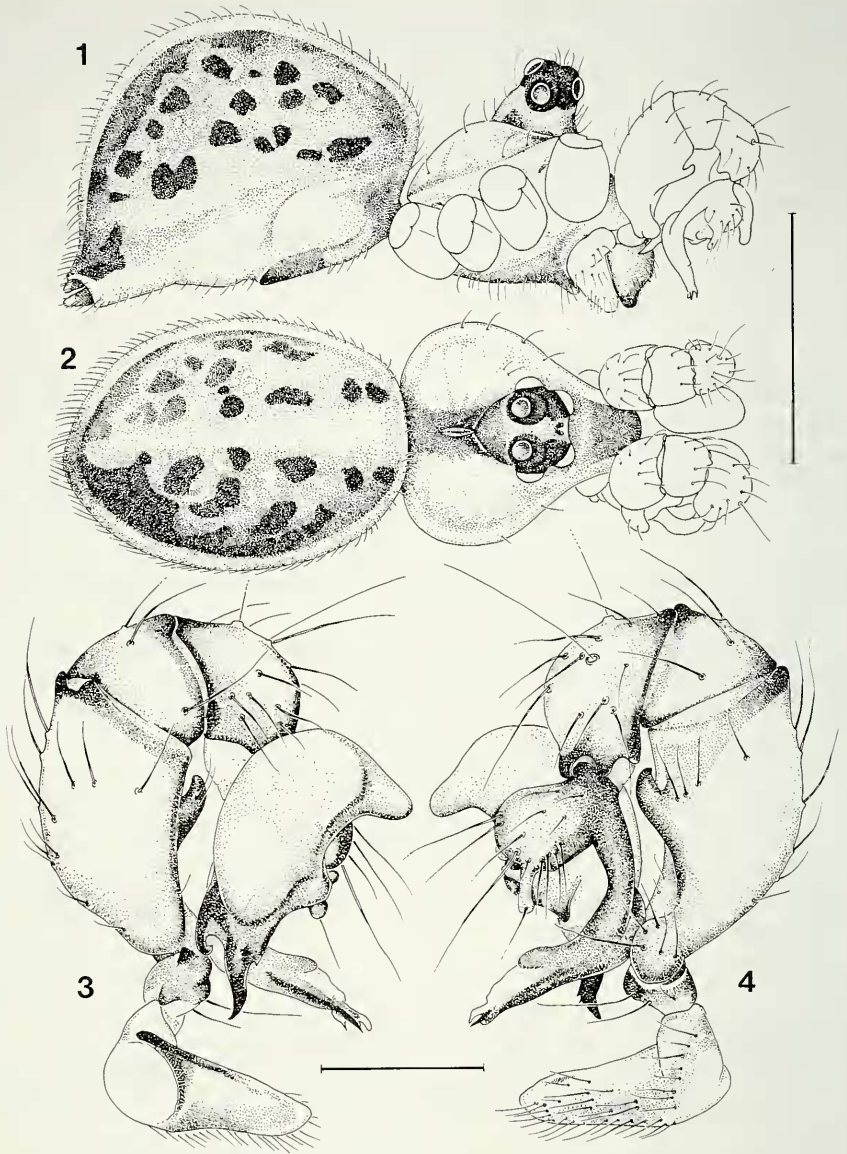
Measurements of male holotype: Total length: 2.4; prosoma width: 0.95; length: 0.8; opisthosoma length: 1.6; legs:

	1	2	3	4
fem	6.1	4.2	3.4	4.1
pat	0.4	0.4	0.4	0.4
tib	5.9	3.9	3.1	3.6
met	10.1	6.4	4.6	5.5
tar	1.4	1.0	0.8	0.9
total	23.9	15.9	12.3	14.5
tibind	69	42	36	42

Female: Colors as in male, minute AMEs present in two individuals, absent in the third. Epigynum simple brown plate (Fig. 9). Internal genitalia as in Fig. 10.

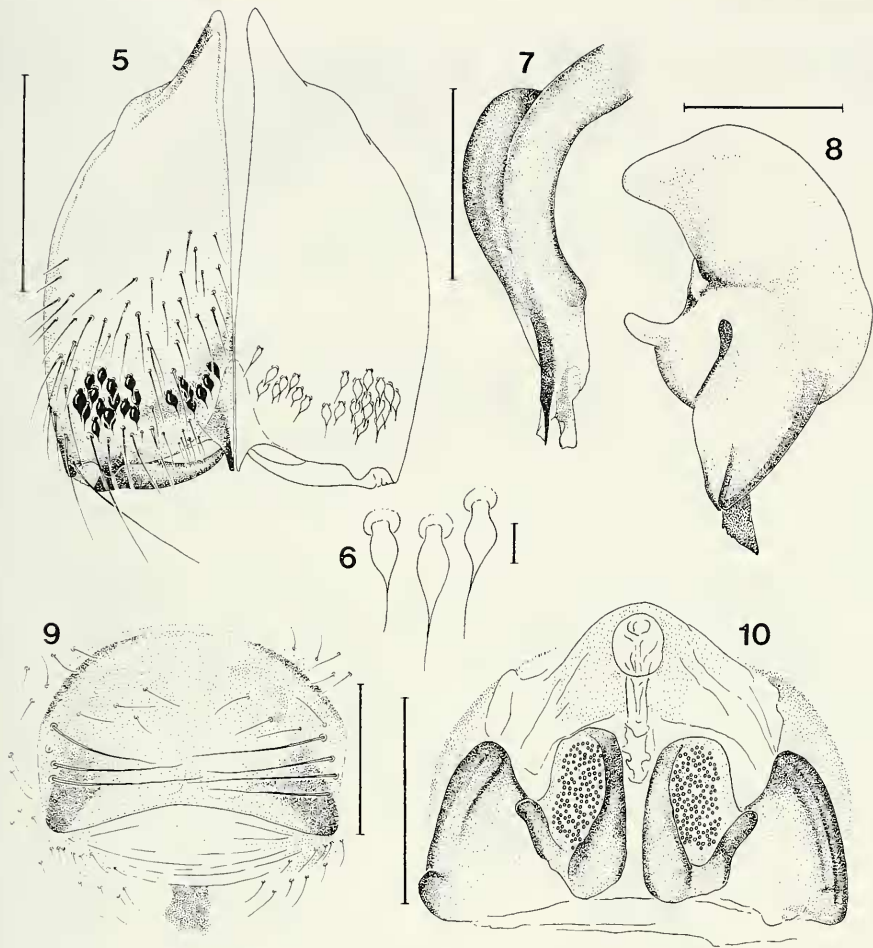
Measurements of a female paratype: Total length: 2.6; prosoma width: 0.79; length: 0.8; opisthosoma length: 1.6; legs:

	1	2	3	4
fem	3.8	2.7	2.2	2.7
pat	0.3	0.3	0.3	0.3
tib	3.8	2.4	1.9	2.2
met	6.0	3.6	2.8	3.3
tar	1.3	0.8	0.7	0.7
total	15.2	9.8	7.9	9.2
tibind	52	33	30	30



FIGS 1-4

Modisimus pana sp.n. 1, Male, lateral view. 2, Male, dorsal view. 3, Left pedipalp, prolateral view. 4, Left pedipalp, retrolateral view. Scales: (1,2) 1 mm, (3,4) 0.3 mm.



FIGS 5-10

Modisimus pana sp.n. 5. Male chelicerae, frontal view. 6. Modified hairs on male chelicerae. 7. Right procurus, retrolateral view. 8. Left bulb, retrolatero-ventral view. 9. Epigynum, ventral view. 10. Epigynum, dorsal view. Scales: (5,7-10) 0.2 mm, (6) 0.01 mm.

Variation: All males except the holotype are quite pale, which is usual for recently molted spiders. Tibia 1 length in other material: males: 5.7, 6.2, 6.4; females: 3.3, 3.5.

Habitat: The spiders were found in small webs with a domed sheet of silk, about 50 cm above the ground, between leaves in the low vegetation.

Modisimus ixobel sp.n.

Figs 11-20

MATERIAL EXAMINED: Male holotype and 2 female paratypes from forest near Finca Ixobel, near Poptun, Dept. Petén, Guatemala, 22 Sept. 1996 (B. A. Huber), in AMNH. 2 female paratypes, same collection data, in MHNG. 5 females, 3 juvs, same collection data, in author's collection.

Etymology: Named for Finca Ixobel, which is close to the type locality.

Diagnosis: Small *Modisimus* with high eye turret (Fig. 11), distinguished from other species of the genus by the male genitalia (bulb with dorsal apophyses; simple procurus; palpal femur with distal bulge - Figs 13-16), the male chelicerae with their characteristically modified hairs in an uncommon position (Figs 17-18), and the female epigynum and internal genitalia (Figs 19-20).

Distribution: Known only from above material from type locality.

DESCRIPTION

Male: Prosoma dorsally pale ochre yellow, with brown mark medially and on eye turret (Fig. 12), clypeus and sternum ochre yellow. Opisthosoma dorsally greenish gray with large black spots and few small white spots (Figs 11-12), ventrally lighter, with brownish genital plate and brown stripe between genital plate and spinnerets. Legs ochre yellow, without rings. Six eyes on high eye turret. Chelicerae with five strong modified hairs on outer distal margin (Figs 17-18). Pedipalps distinctive, as shown in Figs 13-14.

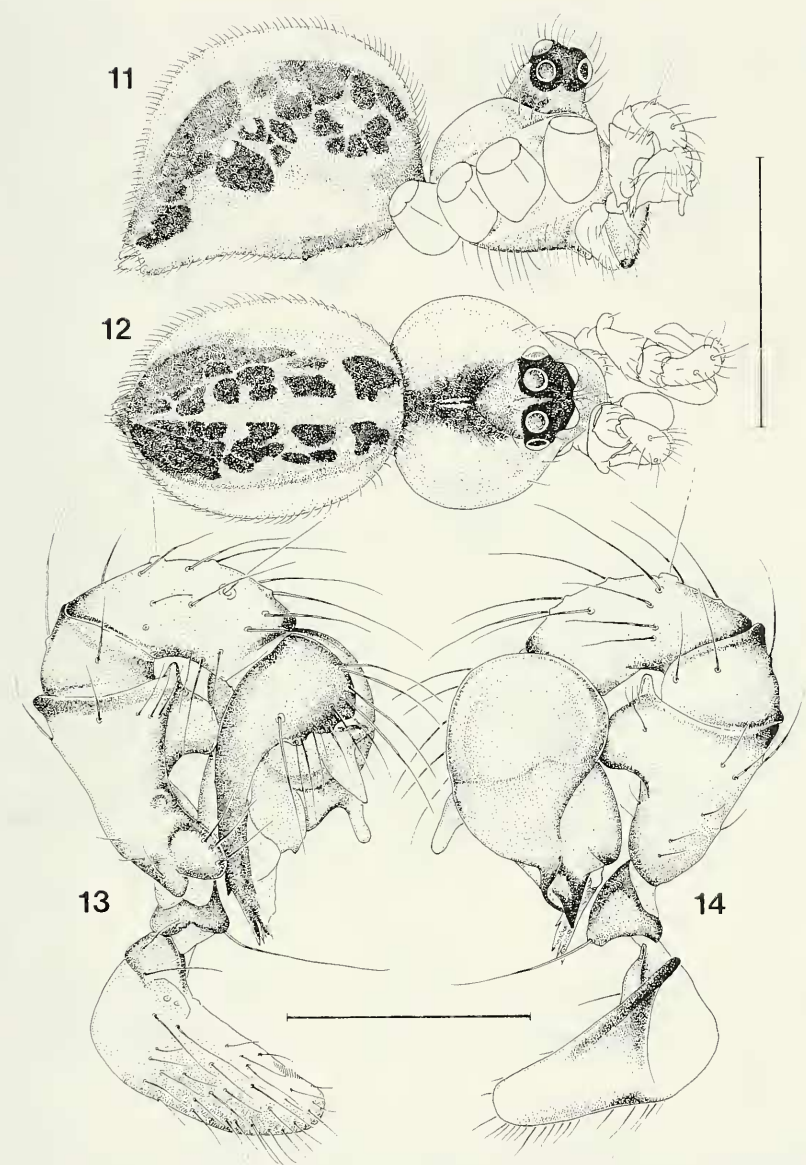
Measurements of male holotype: Total length: 1.9; prosoma width: 0.79; length: 0.7; opisthosoma length: 1.2; legs:

	1	2	3	4
fem	6.2	4.3	3.2	4.1
pat	0.4	0.4	0.3	0.4
tib	6.2	4.1	3.1	3.6
met	10.9	6.3	4.7	5.7
tar	1.4	1.0	0.8	0.9
total	25.1	16.1	12.1	14.7
tibind	82	56	44	49

Female: Colors as in male, but legs with dark rings on femora (distally) and tibiae (proximally and distally). Epigynum simple brown plate (Fig. 19). Internal genitalia as in Fig. 20.

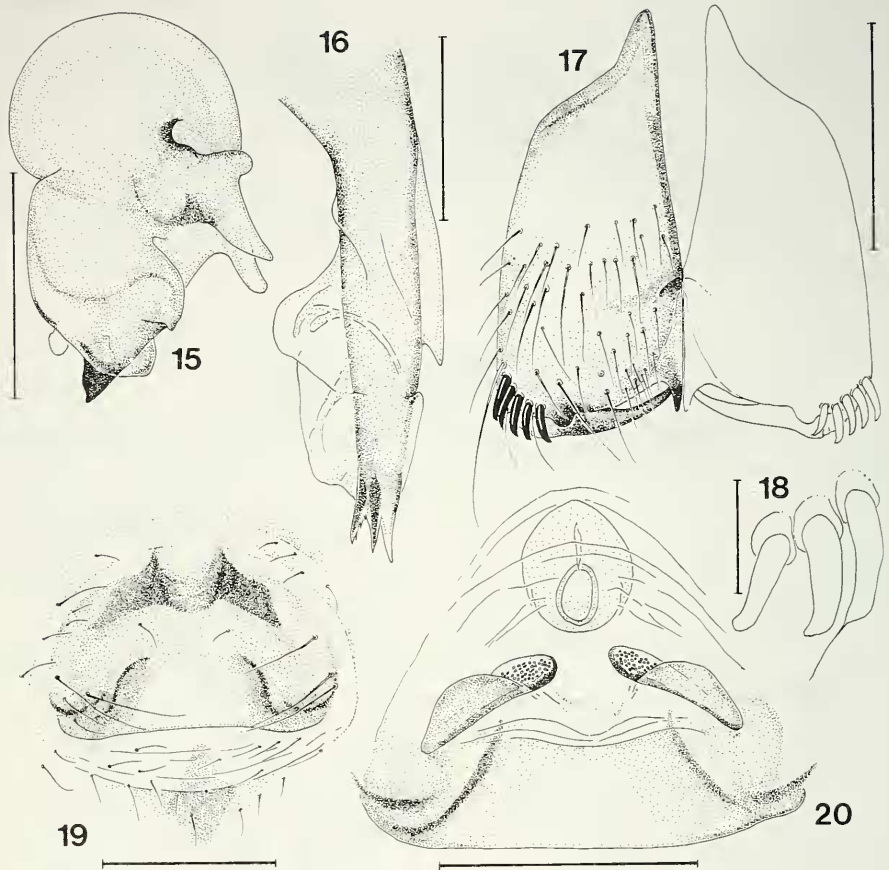
Measurements of a female paratype: total length: 2.5; prosoma width: 0.92; length: 0.8; opisthosoma length: 1.7; legs:

	1	2	3	4
fem	6.2	4.4	3.6	4.4
pat	0.4	0.4	0.4	0.4
tib	6.2	4.1	3.3	3.6
met	10.6	6.5	4.9	5.9
tar	1.7	1.2	0.9	0.9
total	25.1	16.6	13.1	15.2
tibind	70	46	38	40



FIGS 11-14

Modisimus ixobel sp.n. 11, Male, lateral view. 12, Male, dorsal view. 13, Right pedipalp, retro-lateral view. 14, Right pedipalp, pro-lateral view. Scales: (11,12) 1 mm, (13,14) 0.3 mm.



Figs 15-20

Modisimus ixobel sp.n. 15. Right bulb, retrolateral view. 16. Right procurus, prolateral view. 17. Male chelicerae, frontal view. 18. Modified hairs on male chelicerae. 19. Epigynum, ventral view. 20. Epigynum, dorsal view. Scales: (15,17) 0.2 mm, (16) 0.1 mm, (18) 0.03 mm, (19-20) 0.3 mm.

Variation: Tibia 1 in 7 other females: 5.4-6.6; \bar{x} =6.0.

Habitat: The spiders were found in small webs with a domed sheet of silk, close to the ground, mostly in dark sheltered places.

Modisimus cornutus Kraus, 1955

Figs 21-31

Modisimus cornutus KRAUS 1955: 13-14; pl. 1, figs 19-21.

MATERIAL EXAMINED: Male holotype and 9 female paratypes from Isla Utila, Honduras, 26 Sept. 1951 (Peters), SMF 8685-8687 and 8710. 7 males, 5 females, 3 juvs from Jardin Botanico Lancetilla, near Tela, Dept. Atlantida, Honduras, elev. about 50 m, 28 Sept. 1996 (B. A. Huber), one pair in AMNH, one pair in MHNG, others in author's collection.

Diagnosis: Small *Modisimus* with high eye turret (Fig. 21), distinguished from other species of the genus by the male genitalia (bulb with a pair of dorsal processes: cymbium with dorsal apophysis and procursus with translucent dorsal spine - Figs 23-24, 26, 28), the male chelicerae with a patch of simple spines (Fig. 27), and the female epigynum and internal genitalia (Figs 29-31).

Note: The diagnosis of the original description refers to three cylindrical processes on the pedipalpal tarsus. However, two of these processes do not originate from the tarsus (cymbium) but from the bulb (Fig. 26).

Distribution: Known only from above material from two localities in northern Honduras.

REDESCRIPTION

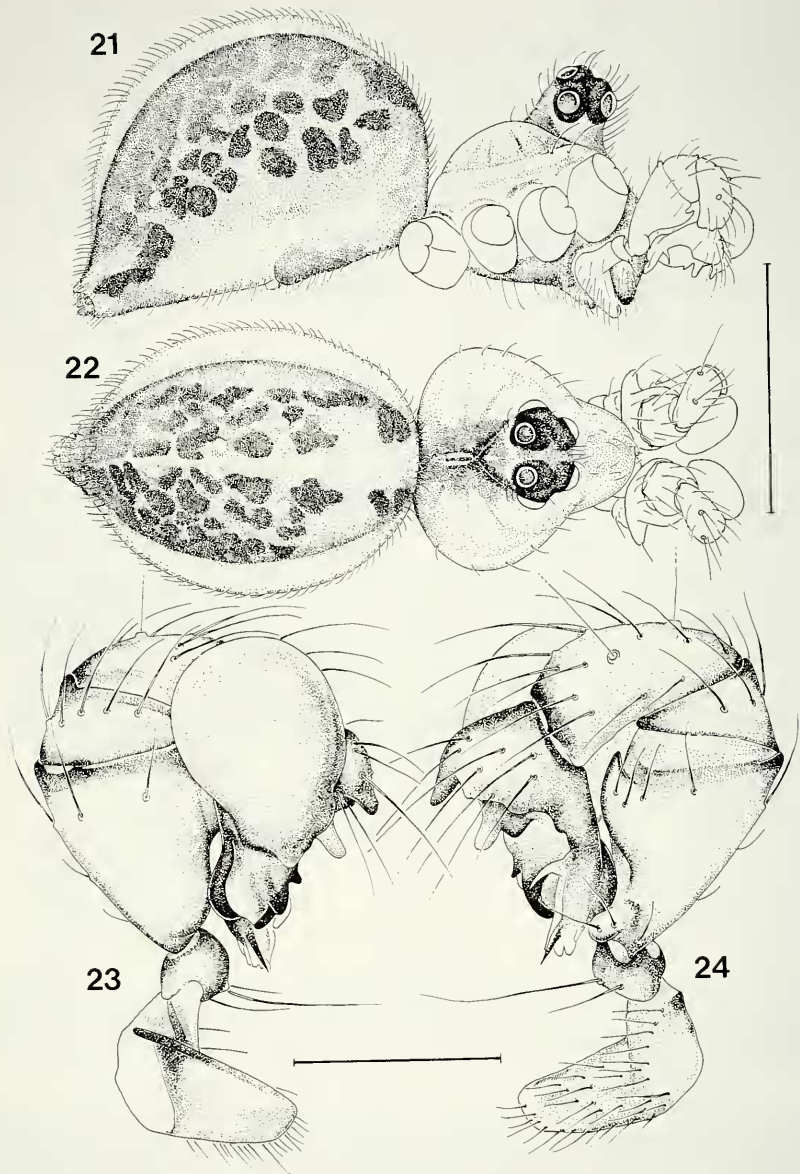
Male (Lancetilla): Prosoma ochre, only eye turret darker. Opisthosoma dorsally greenish gray with large black spots and few small white spots (Figs 21-22), ventrally lighter, with light brownish genital plate and short black stripe between genital plate and another brown spot near spinnerets. Legs ochre brown, without rings. Six eyes on high eye turret. Chelicerae with a patch of about 10 modified hairs on each side (Fig. 27). Pedipalps distinctive, as shown in Figs 23-24. The male holotype is much paler, and the patches of modified hairs on the chelicerae are located slightly more proximally.

Measurements of a male from Lancetilla: Total length: 2.3; prosoma width: 0.89; length: 0.8; opisthosoma length: 1.5; legs:

	1	2	3	4
fem	5.4	3.6	2.9	3.6
pat	0.4	0.4	0.4	0.4
tib	5.7	3.6	2.9	3.5
met	9.7	5.5	4.2	5.1
tar	1.4	0.9	0.8	0.8
total	22.6	14.0	11.2	13.4
tibind	75	49	41	46

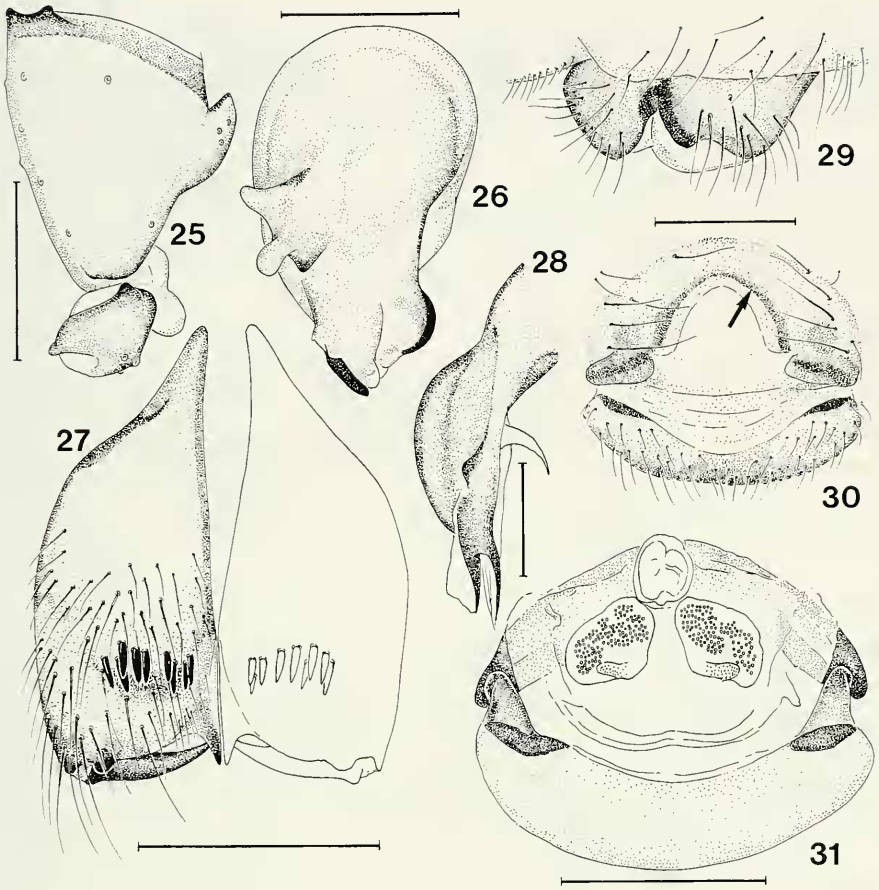
Female (Lancetilla): Colors as in male, but with broad dark median stripe dorsally on prosoma, legs also without rings. Epigynum brown, slightly protruding, with posterior sclerotized plate (Figs 29-30). Internal genitalia as in Fig. 31. Most paratypes are very pale, but in several the dark spots on the opisthosoma are still discernible. The epigynum looks identical in side view, but in ventral view the median arch on the frontal plate (arrow in Fig. 30) is not visible in some of the females.

Measurements of a female from Lancetilla: Total length: 2.0; prosoma width: 0.79; length: 0.7; opisthosoma length: 1.3; legs:



FIGS 21-24

Modisimus cornutus Kraus. 21, Male, lateral view. 22, Male, dorsal view. 23, Left pedipalp, prolateral view. 24, Left pedipalp, retrolateral view. Scales: (21,22) 1 mm, (23,24) 0.3 mm.



FIGS 25-31

Modisimus cornutus Kraus. 25, Left palpal trochanter and femur, prolateral view. 26, Left bulb, retrolateral view. 27, Male chelicerae, frontal view. 28, Left procurus, prolateral view. 29, Epigynum, lateral view, frontal side on the right. 30, Epigynum, ventral view; arrow points to arch that is not visible in some females. 31, Epigynum, dorsal view. Scales: (25-27, 29-31) 0.2 mm, (28) 0.1 mm.

	1	2	3	4
fem	3.6	2.4	1.9	2.5
pat	0.3	0.3	0.3	0.3
tib	3.6	2.2	1.8	2.2
met	5.7	3.3	2.6	3.2
tar	1.2	0.8	0.7	0.7
total	14.4	9.0	7.3	8.9
tibind	57	35	29	25

Variation: Tibia 1 in other material: Lancetilla: 6 males: 4.8-5.4; \bar{x} =5.2; 4 females: 3.3, 3.3, 3.3, 3.6. Isla Utila: 1 male: 7.0; 5 females: 4.3-4.9 (\bar{x} =4.7).

Habitat: In Lancetilla the spiders were found in small webs with a domed sheet of silk, close to the ground, mostly in dark sheltered places, along a dried brook-bed.

'Coryssocnemis' tigma sp.n.

Figs 32-40

MATERIAL EXAMINED: Male holotype and female paratype from Parque Nacional La Tigra, (about 10 km NE Tegucigalpa), Dept. Francisco Morazán, Honduras, elev. about 1800-1900 m, 2 Oct. 1996 (B. A. Huber), in AMNH. 1 female paratype, same collection data, in MHNG. 2 females and 4 juvs, same collection data, in author's collection.

Etymology: Named for type locality.

Diagnosis: Medium sized to large dark pholcid with eight eyes on slightly elevated ocular area. Male and female genitalia highly distinctive (bulb with a pair of large ventral processes; simple, slender procurus; epigynum with a pair of long posterior processes - Figs 39-40). Male chelicerae unmodified. Female with paired stridulatory apparatus between prosoma and opisthosoma.

Distribution: Known only from above material from type locality.

DESCRIPTION

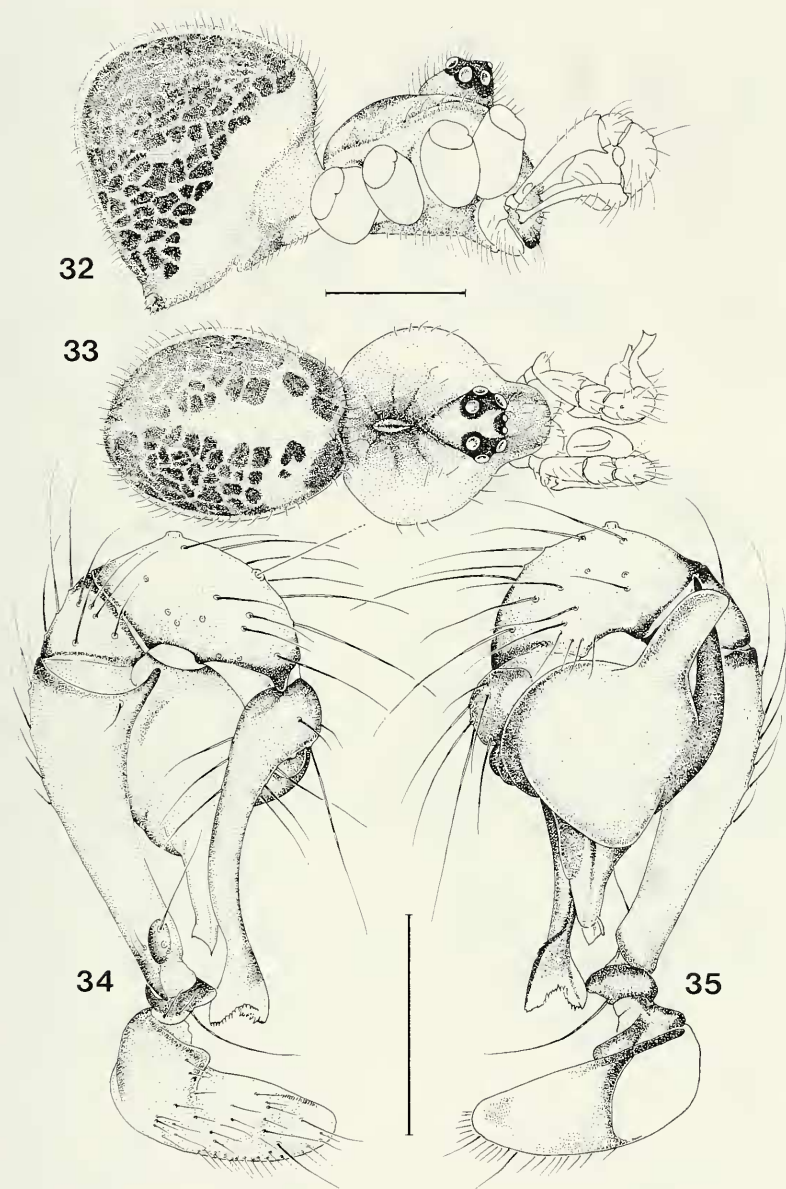
Male: Prosoma dorsally pale ochre with large dark brown area medially (Fig. 33). Ocular area and clypeus also brown. Opisthosoma dorsally greenish gray with large black spots and few small white spots (Figs 32-33), ventrally lighter, with brownish genital plate. Legs ochre brown, with dark rings on femora (distally) and tibiae (only proximally). Eight eyes on slightly elevated ocular area (Fig. 32). Chelicerae unmodified. Pedipalps distinctive, as shown in Figs 34-35.

Measurements of male holotype: Total length: 2.9; prosoma width: 1.43; length: 1.3; opisthosoma length: 1.6; legs:

	1	2	3	4
fem	6.2	5.2	4.4	5.2
pat	0.6	0.6	0.5	0.5
tib	6.5	4.9	4.1	4.9
met	8.4	6.2	5.3	6.2
tar	1.9	1.5	1.3	1.3
total	23.6	18.4	15.6	18.1
tibind	42	30	27	34

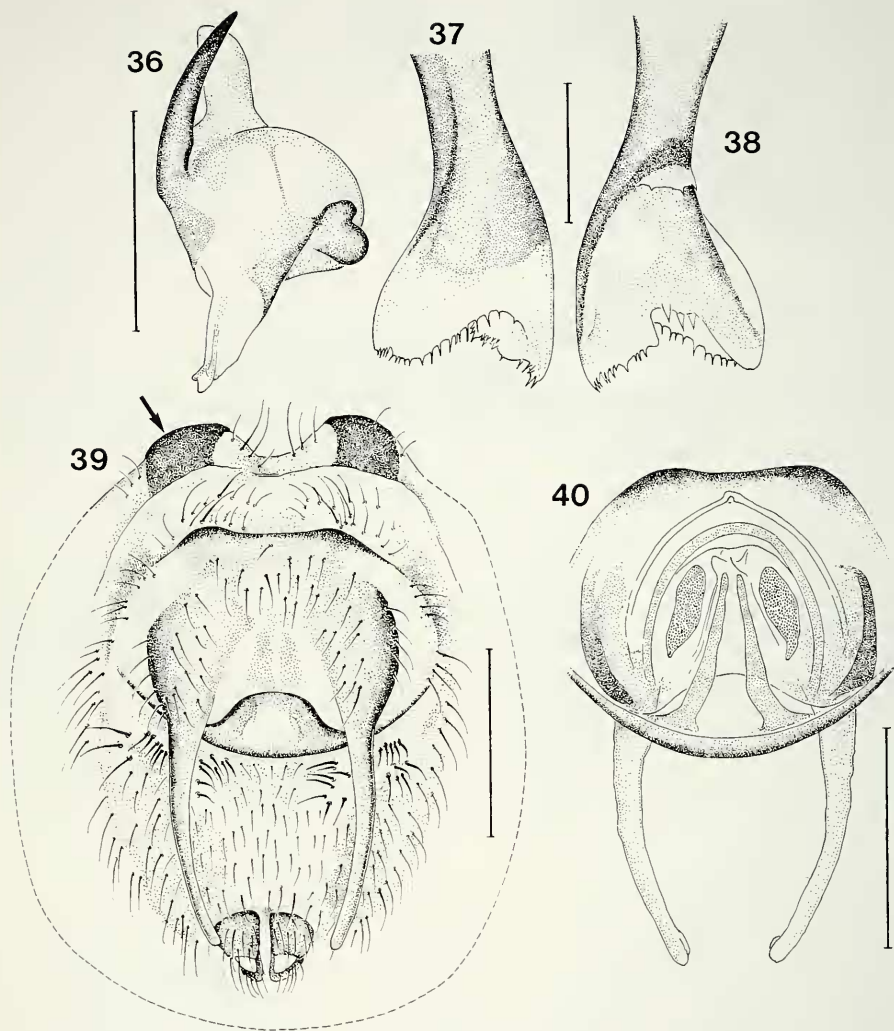
Female: Colors as in male. The structure of the external genitalia is unique among pholcids (Fig. 39). Internal genitalia as shown in Fig. 40. Stridulatory organ consisting of a pair of humps on the rear side of the prosoma dorsally, and a corresponding pair of sclerotized plates on the opisthosoma (arrow in Fig. 39).

Measurements of a female paratype: total length: 3.3; prosoma width: 1.24; length: 1.2; opisthosoma length: 2.1; legs:



FIGS 32-35

Coryssocnemis *tigra* sp.n. 32, Male, lateral view. 33, Male, dorsal view. 34, Right pedipalp, retrolateral view. 35, Right pedipalp, prolateral view. Scales: (32-33) 1 mm. (34-35) 0.5 mm.



FIGS 36-40

'*Coryssocnemis*' *tigma* sp.n. 36, Right bulb, retrolateral view. 37, Right procurus tip, retrolateral view. 38, Right procurus tip, prolateral view. 39, Female opisthosoma, ventral view; arrow points to one of the two sclerotized plates which are part of the 'stridulatory apparatus'. 40, Epigynum, dorsal view. Scales: (36, 39-40) 0.5 mm, (37-38) 0.1 mm.

	1	2	3	4
fem	4.8	3.8	3.0	3.9
pat	0.5	0.5	0.4	0.4
tib	4.9	3.4	2.7	3.5
met	6.2	4.4	3.6	4.6
tar	1.7	1.3	1.2	1.2
total	18.1	13.4	10.9	13.6
tibind	39	27	22	28

Variation: In one female the rings on the legs are very dark, and both are preceded and followed by light rings, giving the legs a very vivid pattern. Tibia 1 in 3 other females: 4.8, 5.1, 5.1.

Habitat: The spiders were found in essentially the same type of web and in the same habitat as '*C. furcula*' (see below).

'*Coryssocnemis*' *furcula* Cambridge, 1902

Figs 41-52

Coryssocnemis furcula CAMBRIDGE 1902: 371; pl. 35, figs 8, 8a-b. Kraus 1955: 14; pl. 2, figs 22-23.

TYPE MATERIAL: Female holotype from "Tecpam in the Los Altos region" (Tecpán Guatemala, Dept. Chimaltenango), Guatemala, elev. about 2300 m, no date (Stoll), in BMNH, examined.

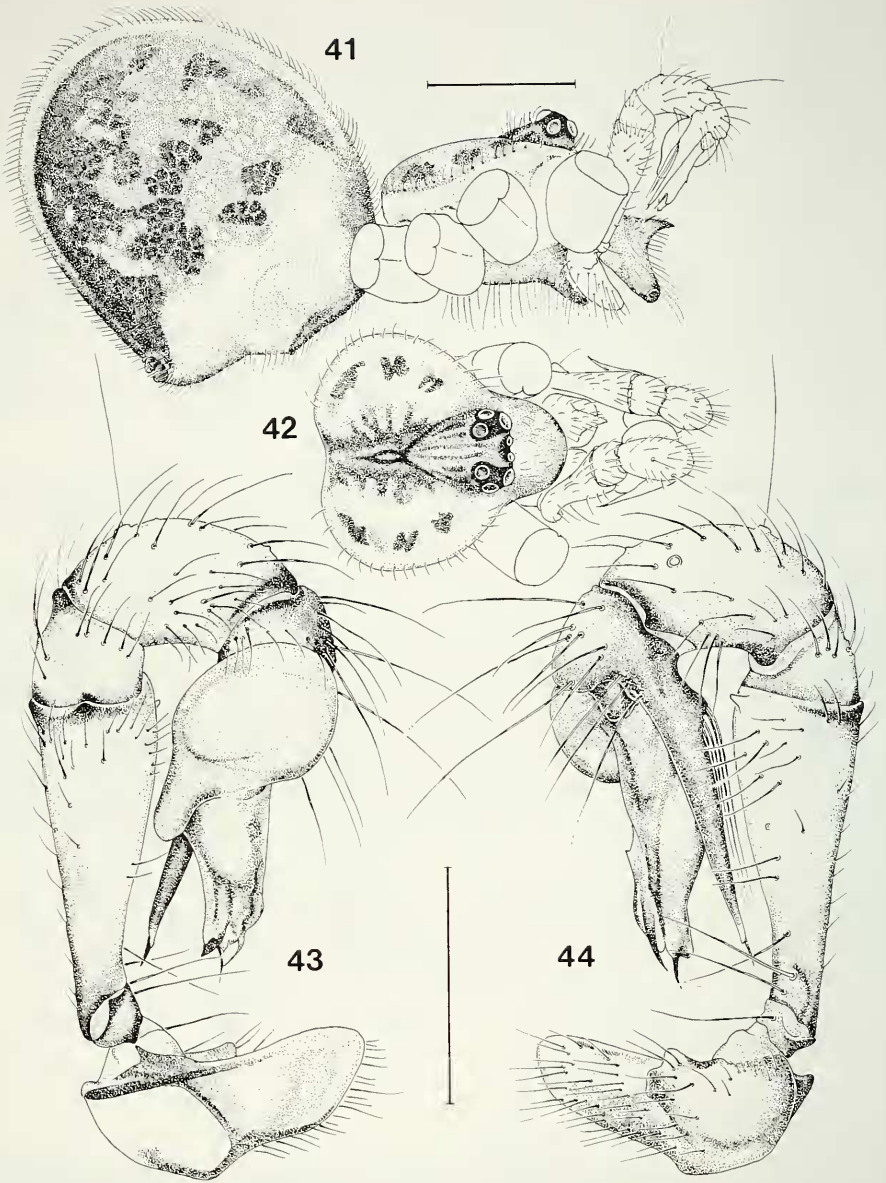
OTHER MATERIAL EXAMINED: HONDURAS: 4 males, 3 females, 5 juvs from Parque Nacional La Tigra, (about 10 km NE Tegucigalpa), Dept. Francisco Morazán, elev. about 1800-1900 m, 2 Oct. 1996 (B. A. Huber), one pair in AMNH, one pair in MHNG, others in author's collection. GUATEMALA: 2 males, 4 females from near Panajachel (this is only about 20 km from the type locality), Dept. Sololá, elev. about 1700 m, 17 Sept. 1996 (B. A. Huber), in author's collection. 3 females from near Zunil (about 7 km SE Quetzaltenango), Dept. Quetzaltenango, elev. about 2150 m, 18 Sept. 1996 (B. A. Huber), in author's collection. EL SALVADOR: 1 male, 4 females from Finca San Jorge near Santa Ana, Dept. Santa Ana, elev. about 1000 m, 25 April 1951 (O. Kraus), SMF 8545-8546.

Diagnosis: Very large dark pholcid with strong legs, characterized by the male genitalia (bulb with rounded prolateral process; procurus slender with distal spine - Figs 43-46), the male chelicerae with a pair of strong pointed apophyses (Fig. 47), and the female epigynum and internal genitalia (Figs 48-51).

Distribution: The species has been found in mountainous regions of Guatemala, El Salvador, and Honduras (Fig. 52).

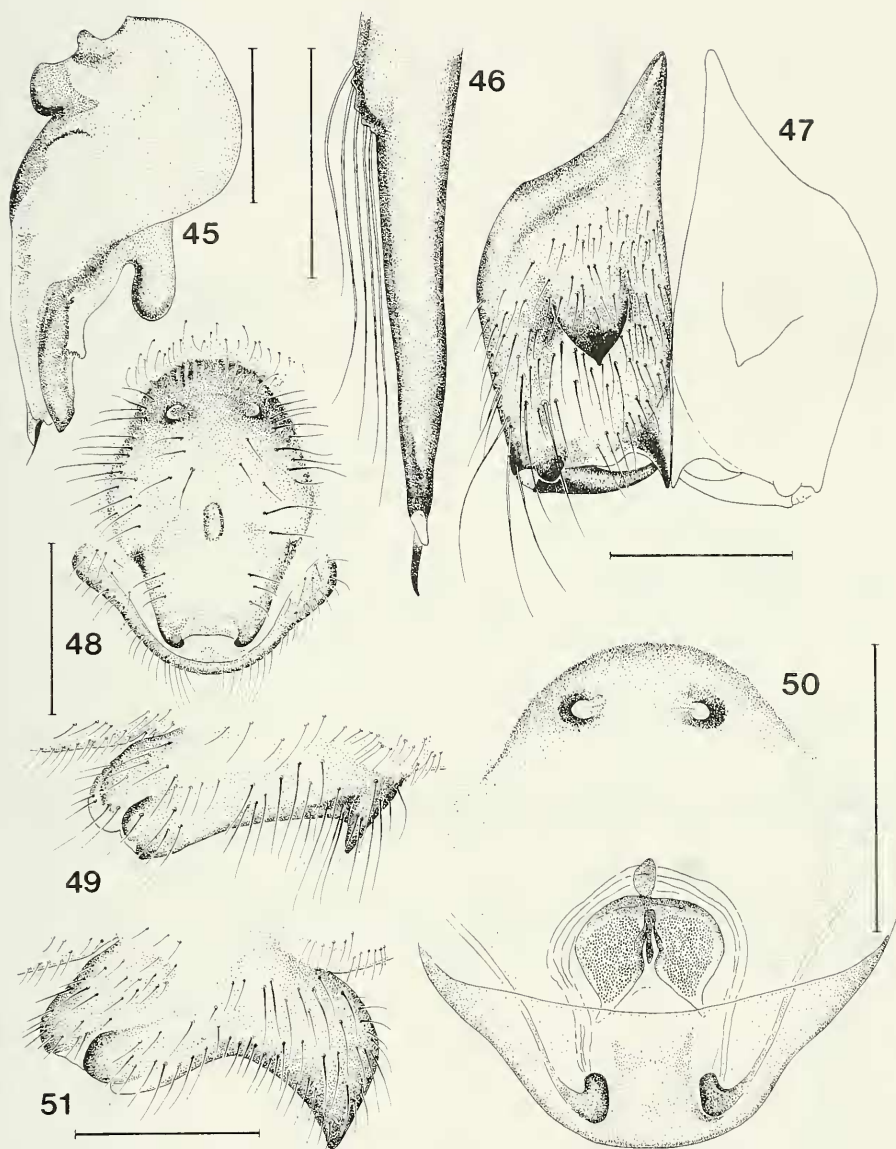
REDESCRIPTION

Male: Prosoma dorsally pale ochre gray with characteristic pattern of dark brown spots (Fig. 42). Clypeus and sternum light brown. Opisthosoma dorsally dark greenish gray with many black and (smaller) white spots (Fig. 41), ventrally lighter, with brown genital plate and black spinnerets. Legs brown, femora with two dark rings distally, patellae dark, tibiae with dark rings proximally and distally, distal ring followed by light ring. Eight eyes on slightly elevated ocular area (Fig. 41). Chelicerae with a pair of large anterior apophyses (Figs 41, 47). Pedipalps distinctive, as



FIGS 41-44

Coryssoecnemis furcula Cambridge. 41, Male, lateral view. 42, Male prosoma, dorsal view. 43, Left pedipalp, prolateral view. 44, Left pedipalp, retrolateral view. Scales: (41-42) 2 mm. (43-44) 1 mm.



FIGS 45-51

Coryssoenemis furcula Cambridge. 45. Left genital bulb, ventral view. 46. Left procurus, prolateral view. 47. Male chelicerae, frontal view. 48. Epigynum, female from La Tigra, ventral view. 49. Epigynum, female from La Tigra, lateral view, frontal side on the right. 50. Epigynum, female from La Tigra, dorsal view. 51. Epigynum, female from Panajachel, lateral view. Scales: (45-47) 0.5 mm. (48-51) 1 mm.

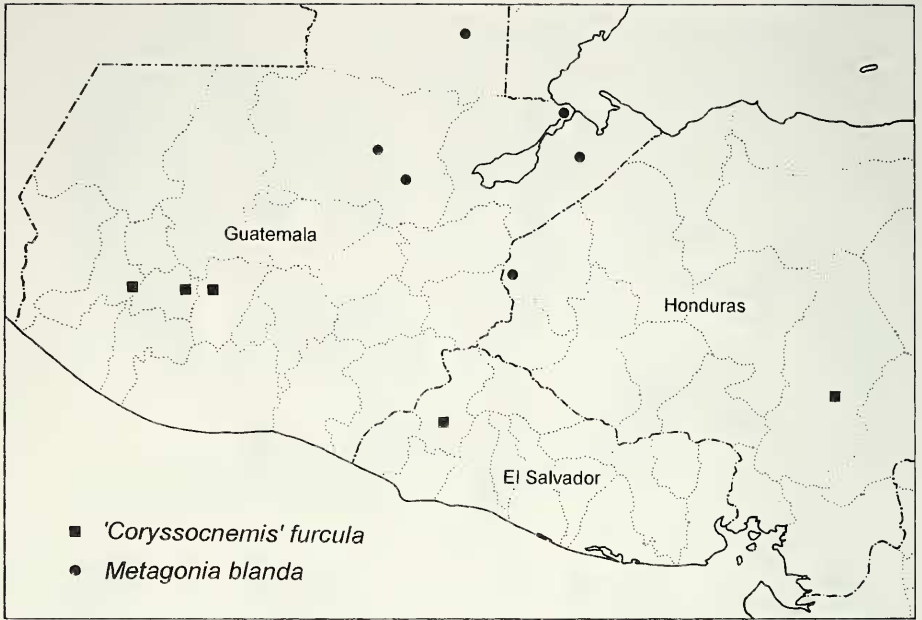


FIG. 52

Distribution of *'Coryssocnemis' furcula* Cambridge and *Metagonia blanda* Gertsch.

shown in Figs 43-44. The palpal femur bears distally, on the ventral side, a small apophysis. It is not clear whether this is a homologue of the 'pup-apophysis' that characterizes the *Modisimus*-group sensu Huber (in press b).

Measurements of a male from La Tigra: Total length: 7.7; prosoma width: 3.19; length: 2.8; opisthosoma length: 4.9; legs:

	1	2	3	4
fem	12.0	9.7	8.1	10.4
pat	1.4	1.4	1.3	1.2
tib	12.0	8.6	6.8	9.0
met	15.1	11.3	9.0	11.8
tar	5.2	3.2	2.4	2.6
total	45.7	34.2	27.6	35.0
tibind	28	23	18	24

Female (La Tigra). Colors as in male, but with large brown epigynum (Figs 48-49). Internal genitalia relatively small in relation to the large epigynum (Fig. 50).

Measurements of a female from La Tigra: Total length: 7.4; prosoma width: 2.61; length: 2.3; opisthosoma length: 5.1; legs:

	1	2	3	4
fem	8.8	7.1	5.9	8.0
pat	1.2	1.1	1.0	1.0
tib	9.3	6.5	4.9	6.8
met	10.9	8.0	6.4	8.6
tar	4.1	2.6	2.0	2.0
total	34.3	25.3	20.2	26.4
tibind	24	18	14	19

Variation: While the male genitalia are almost identical in all the studied specimens, there is substantial variation in the female epigynum. Females from Honduras (La Tigra) have relatively small frontal apophyses (Fig. 49), while those from Guatemala (Tecpán, Panajachel, Zunil), have much larger apophyses (Fig. 51; Cambridge 1902: figs 8, 8b). Females from El Salvador (Santa Ana) are intermediate, though closer to those from Guatemala. Tibia 1 in other material: La Tigra: 3 males: 10.0, 11.3, 12.6; 2 females: 7.0, 9.3. Panajachel: 2 males: 11.3, 12.0; 4 females: 9.9, 10.1, 10.1, 10.4; Zunil: 2 females: 7.4, 9.3. Santa Ana: 1 male: 12.8; 4 females: 10.6, 10.7, 11.2, 11.3.

Habitat: The spiders were found in sheet webs close to the ground, mostly in dark sheltered places, along creeks (Panajachel, Zunil) or footpaths (La Tigra). When disturbed the spiders fled into a funnel that led into the substrate, much like agelenids, but with the difference that the funnel was the continuation of the *underside* of the sheetweb.

Metagonia lancetilla sp.n.

Figs 53-62

MATERIAL EXAMINED: Male holotype and female paratype from Jardín Botánico Lancetilla, near Tela, Dept. Atlántida, Honduras, elev. about 50 m, 28 Sept. 1996 (B. A. Huber), in AMNH. 1 female paratype, same collection data, in MHNG.

Etymology: Named for type locality.

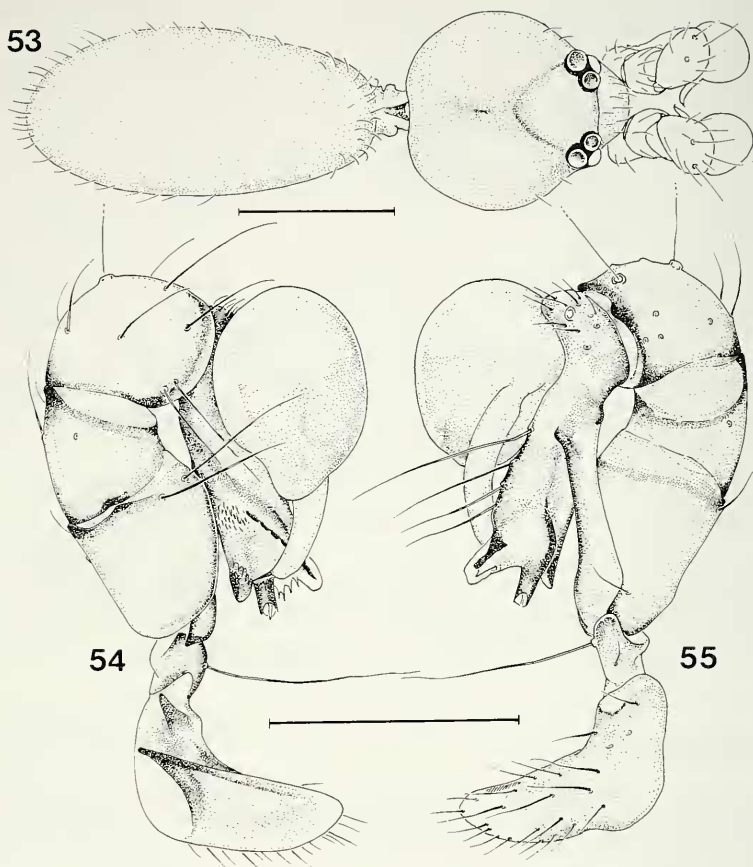
Diagnosis: Small epigean *Metagonia*, distinguished from other species of the genus by male and female genitalia (procursus with long ventral hinged process; epigynum with posterior process - Figs 54-55, 59-62), and male chelicerae with a pair of apophyses (Figs 56, 58).

Distribution: Known only from above material from type locality.

DESCRIPTION

Male: Entire body pale ochre yellow (Fig. 53), only tibia-metatarsus joints dark brown, patellae only slightly darkened. Pedipalps as shown in Figs 54-55, procursus with long hinged process (arrow in fig. 59). Palpal femur with ventral apophysis distally (Fig. 57). Chelicerae with a pair of large distinctive apophyses frontally (Figs 56, 58), which seem to carry about four deeply inserted modified hairs each. Clypeus unmodified.

Measurements of male holotype: Total length: 1.7; prosoma width: 0.67; length: 0.6; opisthosoma length: 1.1; legs:



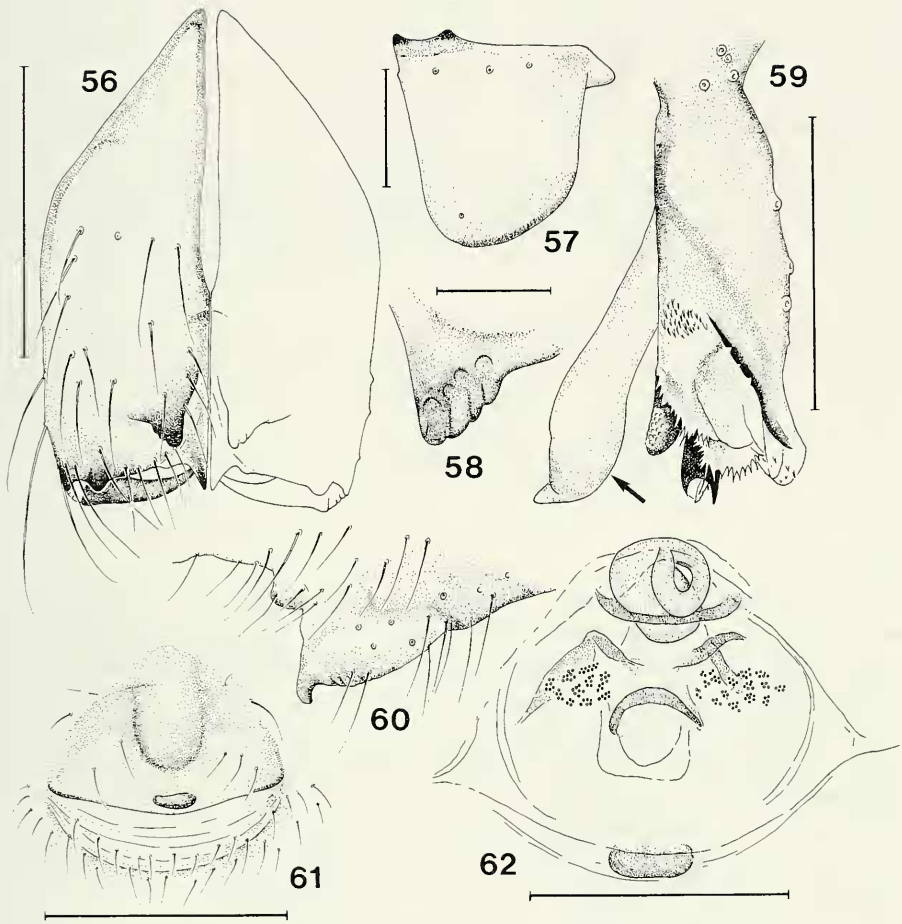
FIGS 53-55

Metagonia lancetilla sp.n. 53, Male, dorsal view. 54, Left pedipalp, prolateral view. 55, Left pedipalp, retrolateral view. Scales: (53) 0.5 mm, (54-55) 0.3 mm.

	1	2	3	4
fem	4.5	2.9	2.0	3.0
pat	0.3	0.3	0.3	0.3
tib	4.5	2.7	1.7	2.5
met	7.7	4.3	2.5	3.8
tar	1.3	0.9	0.6	0.6
total	18.3	11.1	7.1	10.2
tibind	71	43	30	40

Female: Colors as in male. Epigynum of same color, of distinctive shape (Figs 60-61). Internal genitalia as in Fig. 62.

Measurements of a female paratype: total length: 1.7; prosoma width: 0.57; length: 0.6; opisthosoma length: 1.1; legs:



FIGS 56-62

Metagonia lancetilla sp.n. 56, Male chelicerae, frontal view. 57, Male palpal femur, lateral view. 58, Apophysis on left male chelicera. 59, Left procurrus, prolateral view; arrow points to 'hinged process'. 60, Epigynum, lateral view, frontal side on the right. 61, Epigynum, ventral view. 62, Epigynum, dorsal view. Scales: (56, 59, 62) 0.2 mm, (57) 0.1 mm, (58) 0.03 mm, (60-61) 0.3 mm.

	1	2	3	4
fem	3.6	2.5	1.7	2.8
pat	0.3	0.3	0.2	0.3
tib	3.3	2.1	1.4	2.2
met	5.8	3.3	2.0	3.3
tar	1.2	0.7	0.5	0.6
total	14.2	8.9	5.8	9.2
tibind	52	35	25	39

Tibia 1 in other female: 3.5.

Habitat: Underside of large leaves.

Metagonia asintal sp.n.

Figs 63-73

MATERIAL EXAMINED: Male holotype, 1 male and 2 female paratypes from near El Asintal (about 8 km NW Retalhuleu), Dept. Retalhuleu, Guatemala, elev. about 300 m, 19 Sept. 1996 (B. A. Huber), in AMNH. 2 male and 2 female paratypes, same collection data, in MHNG. 3 males, 4 females, 3 juvs, same collection data, in author's collection.

Etymology: Named for type locality.

Diagnosis: Small epigean *Metagonia*, distinguished from other species of the genus by male and female genitalia (details of procurus; large flap directed anteriorly on epigynum - Figs 65-67, 70-73), and male chelicerae with only a pair of tiny modified hairs on each side (Figs 68-69).

Distribution: Known only from above material from type locality.

DESCRIPTION

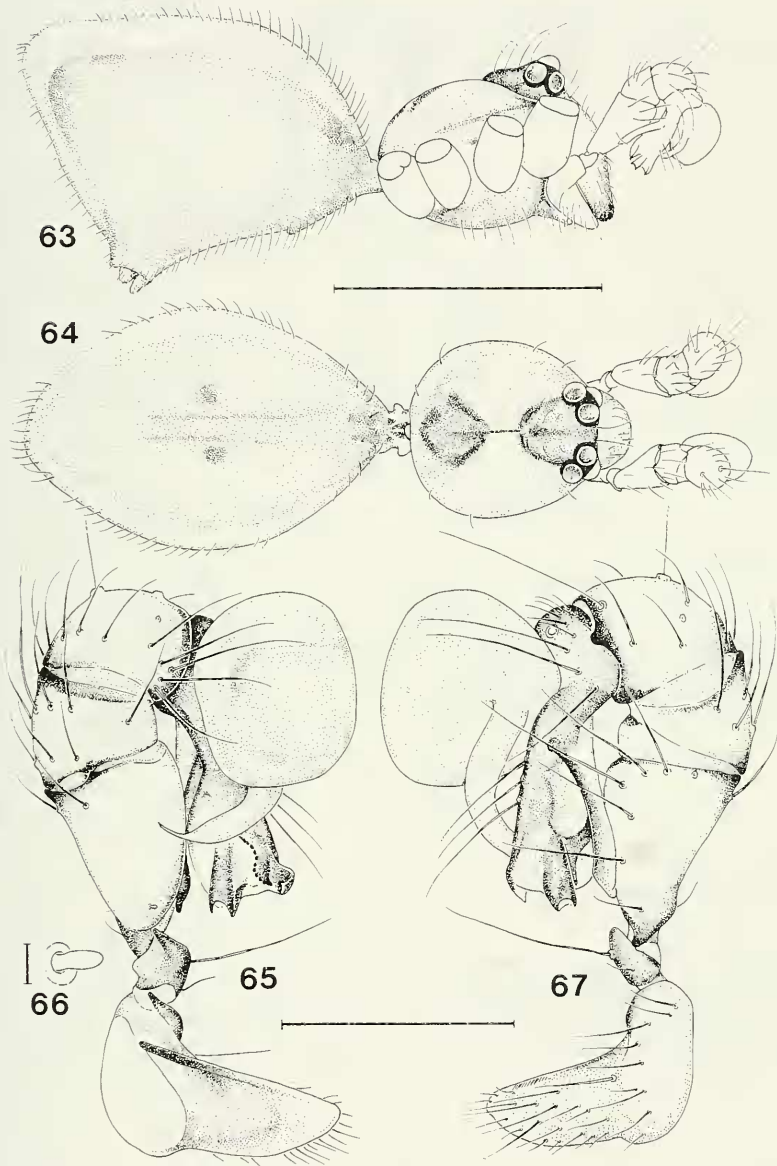
Male: Prosoma pale ochre yellow, with dark spots at ocular area and on rear side of prosoma dorsally (Figs 63-64). Sternum whitish. Legs also pale ochre yellow, with brown patellae and dark brown tibia-metatarsus joints. Opisthosoma grayish ochre, with or without spots dorsally. Pedipalps as shown in Figs 65-67. The chelicerae appear unmodified in the dissecting microscope, but they have two tiny club shaped hairs on each side, and stridulatory ridges laterally (Figs 68-69). The scrapers of the stridulatory organs are club shaped hairs on the proteral sides of the pedipalpal femora (Figs 65-66). Clypeus unmodified.

Measurements of male holotype: Total length: 2.5; prosoma width: 0.78; length: 0.8; opisthosoma length: 1.7; legs:

	1	2	3	4
fem	5.1	3.2	2.3	3.2
pat	0.3	0.3	0.3	0.3
tib	5.1	3.0	1.9	2.8
met	8.6	4.5	2.8	4.1
tar	1.4	0.9	0.7	0.7
total	20.5	11.9	8.0	11.1
tibind	65	43	30	40

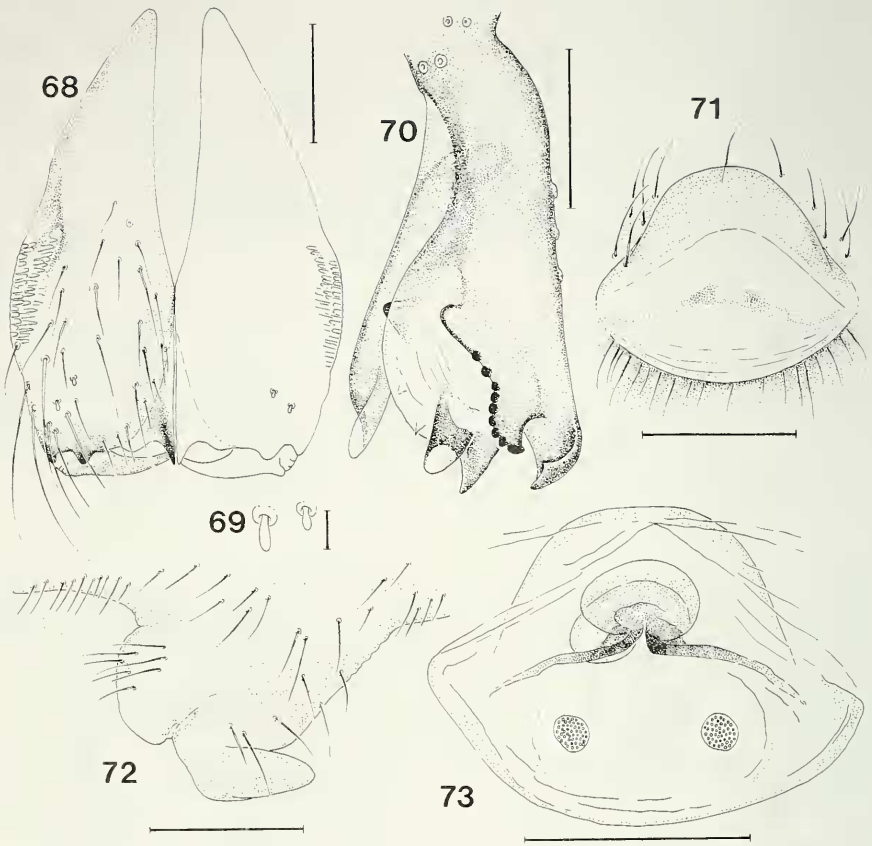
Female: Colors as in male, but spots on prosoma less dark. Epigynum pale, with distinctive lobe directed forwards (Figs 71-72). Internal genitalia as in Fig. 73.

Measurements of a female paratype: total length: 2.4; prosoma width: 0.70; length: 0.8; opisthosoma length: 1.6; legs:



FIGS 63-67

Metagonia asintal sp.n. 63, Male, lateral view. 64, Male, dorsal view. 65, Left pedipalp, prolatral view. 66, Modified hair (scraper) on palpal femur. 67, Left pedipalp, retrolateral view. Scales: (63-64) 1 mm, (65,67) 0.3 mm, (66) 0.01 mm.



FIGS 68-73

Metagonia asintal sp.n. 68. Male chelicerae, frontal view. 69. Modified hairs on male chelicerae. 70. Left procurus, prolateral view. 71. Epigynum, ventral view. 72. Epigynum, lateral view, frontal side on the right. 73. Epigynum, dorsal view. Scales: (68, 70) 0.1 mm, (69) 0.01 mm, (71-73) 0.2 mm.

	1	2	3	4
fem	4.1	2.8	1.7	2.9
pat	0.3	0.3	0.3	0.3
tib	3.9	2.3	1.4	2.3
met	6.0	3.6	2.2	3.4
tar	1.2	0.8	0.6	0.7
total	15.5	9.8	6.2	9.6
tibind	56	37	22	33

Variation: The pattern on the opisthosoma is highly variable: some specimens have no spots at all, others have only a pair of dark spots medially (as in Fig. 64), others have only many white spots. In some males the spots on the prosoma are less dark. Tibia 1 in other material: 5 males: 4.3-5.4, \bar{x} =4.7; 8 females: 3.4-3.9, \bar{x} =3.6.

Habitat: Underside of large leaves.

Metagonia blanda Gertsch, 1973

Figs 52, 74-82

Metagonia blanda GERTSCH 1973: 152; figs 20-22. GERTSCH 1986: 57.

MATERIAL EXAMINED: GUATEMALA: Female holotype from Gruta de Silvino, Dept. Izabal, 34 km SW Puerto Barrios, 20-22 August 1969 (S. & J. Peck), AMNH. 12 males, 9 females from cave near Finca Ixobel, near Poptun, Dept. Petén, 22 Sept. 1996 (B. A. Huber), 2 males, 2 females in AMNH. 2 males, 2 females in MHNG, others in author's collection. 1 female from Cueva Seamay, Finca Senahu, Senahu, Dept. Alta Verapaz, 24-26 Aug. 1969 (S. & J. Peck), AMNH. 3 females from Cueva de la Coche, 1.5 mi W Livingston, Dept. Izabal, 21 Aug. 1969 (S. & J. Peck), AMNH. 2 females, 3 juvs from Cueva Lanquin, Lanquin, Dept. Alta Verapaz, 28. Aug. 1969 (S. & J. Peck), AMNH. HONDURAS: 5 males, 4 females from cave at Quebrada Sesesmil, near Copán, Dept. Copán, elev. about 600 m, 26 Sept. 1996 (B. A. Huber & O. A. Cardona), in author's collection.

Diagnosis: Small troglophile *Metagonia*, distinguished from other species of the genus by male and female genitalia (procursus with long ventral hinged process; epigynum with paired posterior lobe - Figs 76-78, 81-82) and the male chelicerae with usually three modified hairs distally on each side (Figs 79-80).

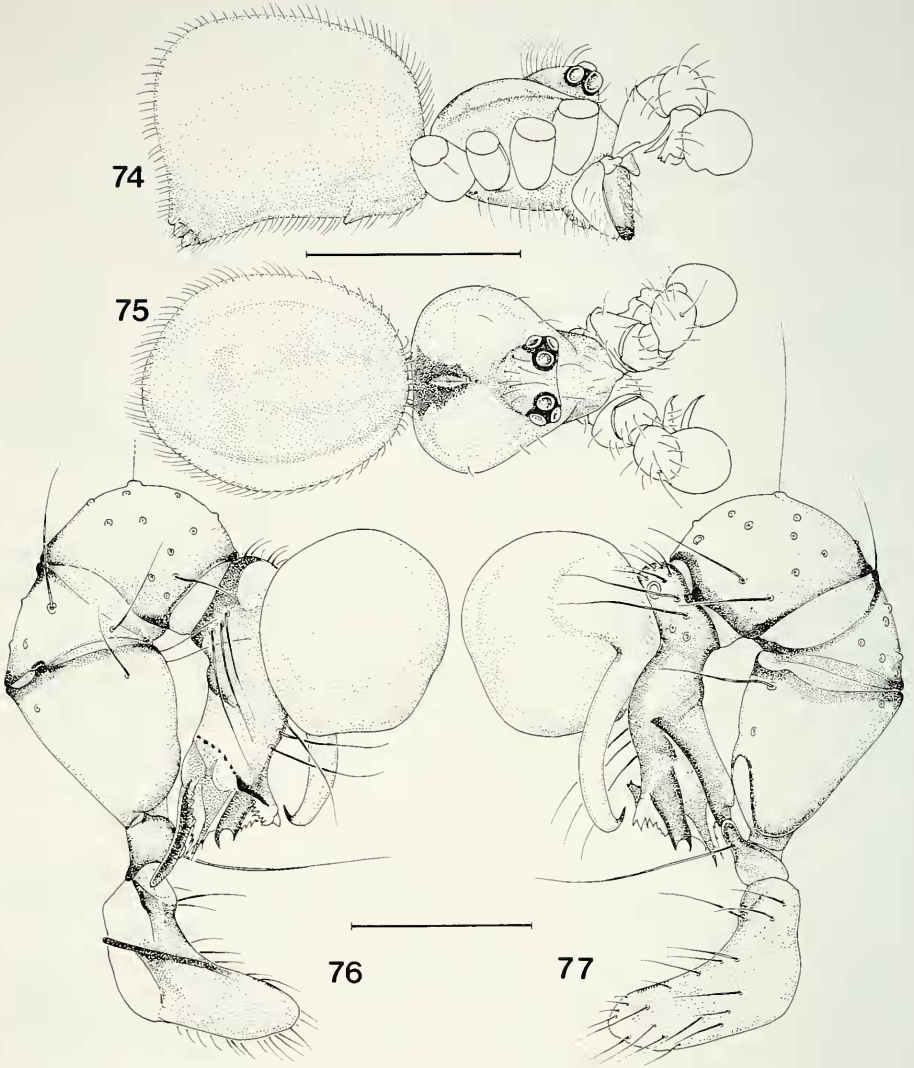
Distribution: This species is now known from six caves in Guatemala and Honduras. For being a troglophile pholcid, the range is surprisingly wide (Fig. 52; cf. troglophile species of the genus *Anopsicus* in Mexico which are usually confined to just one single cave - Gertsch 1982).

DESCRIPTION

Male: Prosoma pale ochre yellow, with darker spot on rear side of prosoma dorsally (Fig. 75). Sternum whitish. Legs also pale ochre yellow, with slightly darker patellae and tibia-metatarsus joints. Opisthosoma whitish, without spots (Figs 74-75). Pedipalps as shown in Figs 76-77. The chelicerae appear unmodified in the dissecting microscope, but they have a group of usually three modified hairs on each side near the bases of the fangs (Figs 79-80). Clypeus with small unpaired projection (Fig. 75).

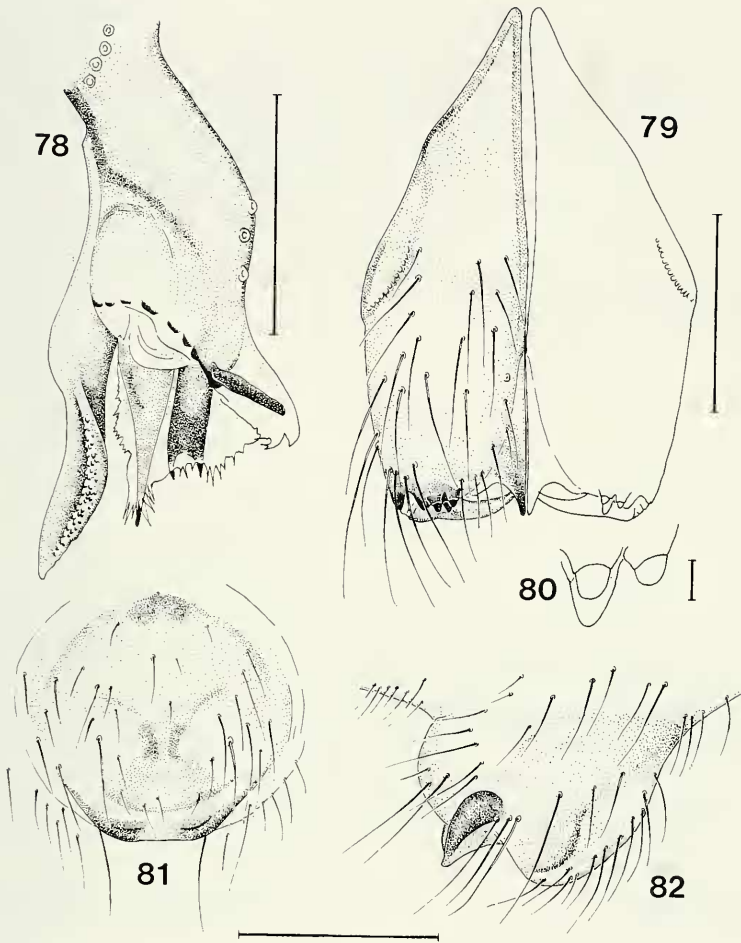
Measurements of a male from Poptun: Total length: 2.5; prosoma width: 0.92; length: 0.8; opisthosoma length: 1.7; legs:

	1	2	3	4
fem	5.4	3.6	2.6	3.7
pat	0.4	0.4	0.4	0.4
tib	5.7	3.6	2.3	3.3
met	9.1	5.5	3.5	4.9
tar	1.3	0.9	0.7	0.7
total	21.9	14.0	9.5	13.0
tibind	72	46	29	41



FIGS 74-77

Metagonia blanda Gertsch. 74, Male, lateral view. 75, Male, dorsal view. 76, Left pedipalp, prolateral view. 77, Left pedipalp, retrolateral view. Scales: (74-75) 1 mm, (76-77) 0.3 mm.



FIGS 78-82

Metagonia blanda Gertsch. 78, Left procurus, prolateral view. 79, Male chelicerae, frontal view. 80, Modified hairs on male chelicerae. 81, Epigynum, ventral view. 82, Epigynum, lateral view, frontal side on the right. Scales: (78-79) 0.2 mm, (80) 0.01 mm, (81-82) 0.3 mm.

REDESCRIPTION

Female: Colors as in male. Epigynum pale, of distinctive shape (Figs 81-82).

Measurements of female holotype: total length: 2.9; prosoma width: 1.05; length: 1.0; opisthosoma length: 1.9; legs:

	1	2	3	4
fem	5.7	4.1	3.0	4.5
pat	0.4	0.4	0.4	0.4
tib	5.9	3.8	2.6	3.9
met	9.7	5.9	3.8	5.4
tar	1.4	1.0	0.7	0.7
total	23.1	15.2	10.5	14.9
tibind	62	40	27	41

Measurements of a female from Poptun: total length: 2.4; prosoma width: 0.89; length: 0.8; opisthosoma length: 1.6; legs:

	1	2	3	4
fem	5.0	3.6	2.6	3.8
pat	0.4	0.4	0.4	0.4
tib	5.0	3.3	2.2	3.3
met	8.0	4.9	3.3	4.8
tar	1.4	0.9	0.7	0.7
total	19.8	13.1	9.2	13.0
tibind	53	35	23	35

Variation: Tibia 1 in other material: Poptun: 10 males: 5.3-5.9, \bar{x} =5.7; 8 females: 4.8-5.4, \bar{x} =5.0. Copán: 5 males: 5.0-5.6, \bar{x} =5.2; 4 females: 4.1, 4.4, 4.8, 4.8.

Habitat: Both in Poptun and in Copán, the spiders were only found within the caves, several meters beyond the entrance, although in Poptun the cave was surrounded by a dense humid forest. In the caves they lived in small crevices and shelters were they apparently built simple attached webs. When disturbed the spiders swiftly ran away over the rock surface.

Metagonia belize Gertsch, 1986

Figs 83-92

Metagonia belize GERTSCH 1986: 55: figs 38-39.

MATERIAL EXAMINED: BELIZE: Female holotype from unnamed fissure near Mountain Cow Cave, Cayo District, May 1977 (L. McNatt), in AMNH. GUATEMALA, Dept. Petén: 6 males, 6 females from forest near Finca Ixobel, near Poptun, 22 Sept. 1996 (B. A. Huber), 2 males, 2 females in AMNH, 2 males, 2 females in MHNG, others in author's collection. 5 males, 6 females from Parque Nacional Cerro Cahui, elev. about 150 m, 21 Sept. 1996 (B. A. Huber), in author's collection. 7 males, 2 females from Tikal, elev. about 150 m, 21 Sept. 1996 (B. A. Huber), in author's collection.

Diagnosis: Small epigeal *Metagonia*, distinguished from congeners by details of male and female genitalia (Figs 85-86, 89-92), and especially the male chelicerae with a unique row of modified hairs on each side (Figs 87-88).

Note: In the original description (Gertsch 1986) the species is characterized as troglophile. The new records show that it is a typical epigeal species instead (also the original record was not from within a cave!).

Distribution: Known from type locality and the three new localities above.

DESCRIPTION

Male: Prosoma and legs pale ochre yellow, without dark marks (Figs 83-84), patellae slightly darker, tibia-metatarsus joints dark. Opisthosoma without spots. Pedipalps as shown in Figs 85-86. Palpal femur with ventral hump (Figs 85-86). Chelicerae with highly distinctive row of modified hairs on each side and a blunt projection more proximally (Figs 87-88). Clypeus unmodified.

Measurements of a male from Poptun: Total length: 2.4; prosoma width: 0.73; length: 0.8; opisthosoma length: 1.6; legs:

	1	2	3	4
fem	5.2	3.6	2.4	3.6
pat	0.4	0.4	0.3	0.4
tib	5.4	3.5	2.0	3.2
met	9.0	5.3	3.0	4.6
tar	1.5	0.9	0.7	0.7
total	21.5	13.7	8.4	12.5
tibind	74	52	32	48

REDESCRIPTION

Female: Colors as in male. Epigynum pale, with distinctive black knob (Figs 90-91). Internal genitalia as in Fig. 92.

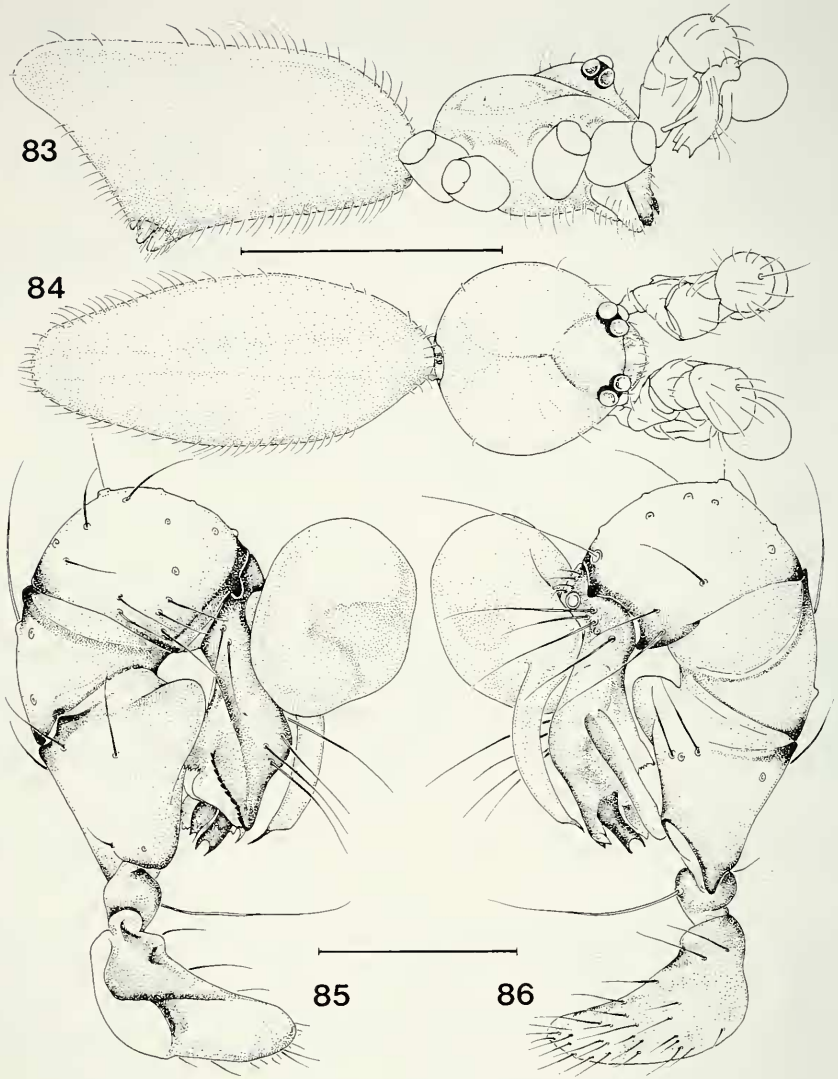
Measurements of female holotype: prosoma width: 0.75; length: 0.7; (opisthosoma damaged); leg 3: fem: 2.1, pat: 0.3, tib: 1.7, met: 2.5, tar: 0.6 (other legs missing).

Measurements of a female from Poptun: total length: 2.5; prosoma width: 0.73; length: 0.8; opisthosoma length: 1.7; legs:

	1	2	3	4
fem	4.3	3.1	2.2	3.2
pat	0.4	0.4	0.3	0.3
tib	4.3	2.8	1.8	2.8
met	7.0	4.3	2.6	4.1
tar	1.3	0.9	0.6	0.7
total	17.3	11.5	7.5	11.1
tibind	61	44	29	40

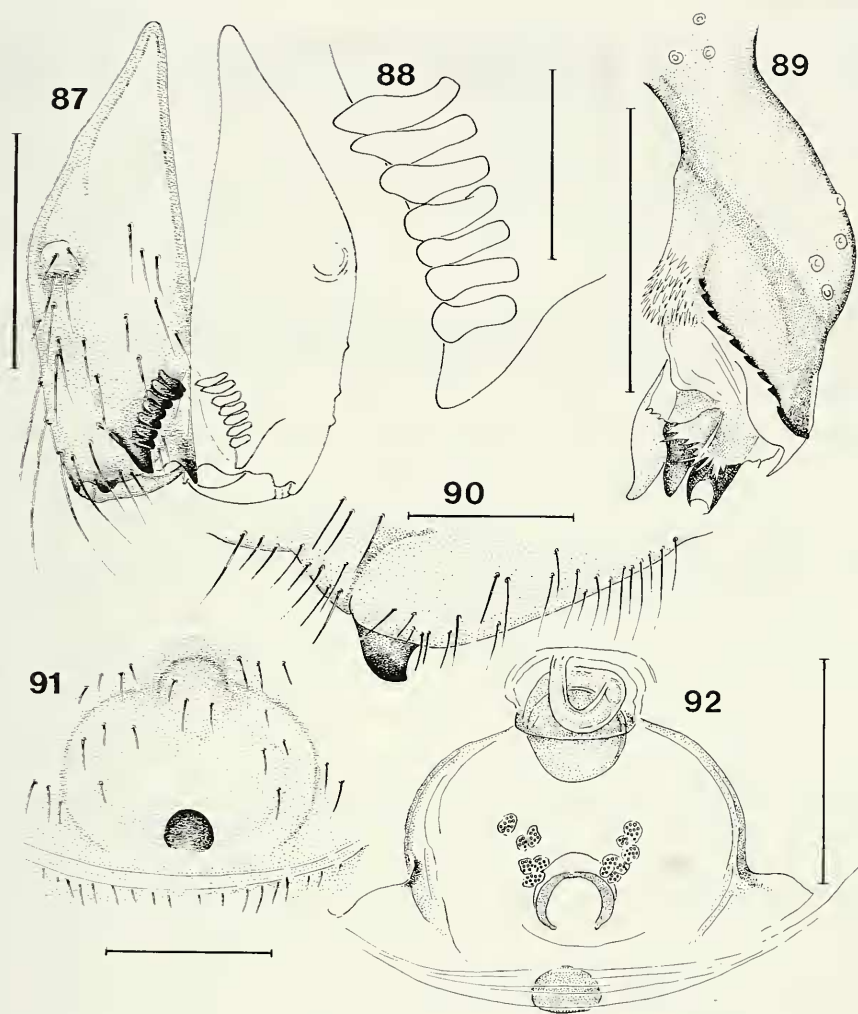
Variation: Tibia 1 in other material: Poptun: 5 males 4.9-5.4, \bar{x} =5.2; 5 females: 3.8-4.3, \bar{x} =4.1. Cerro Cahui: 5 males: 4.5-5.4, \bar{x} =4.9; 6 females: 3.6-4.0, \bar{x} =3.8. Tikal: 6 males: 4.4-5.5, \bar{x} =5.0; 2 females: 4.1, 4.2.

Habitat: Underside of large leaves.



FIGS 83-86

Metagonia belize Gertsch. 83. Male, lateral view. 84. Male, dorsal view. 85. Left pedipalp, prolateral view. 86. Left pedipalp, retrolateral view. Scales: (83-84) 1 mm. (85-86) 0.3 mm.



FIGS 87-92

Metagonia belize Gertsch. 87, Male chelicerae, frontal view. 88, Apophysis with modified hairs on left male chelicera. 89, Left procurus, prolateral view. 90, Epigynum, lateral view, frontal side on the right. 91, Epigynum, ventral view. 92, Epigynum, dorsal view. Scales: (87, 89-92) 0.2 mm, (88) 0.05 mm.

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